

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application of : Tatsuaki NAGAO et al.
Serial No. : Div. of 10/183,085
Date Filed : Concurrently Herewith
For : IMAGE FORMING AND BINDING SYSTEM AND METHOD

1185 Avenue of the Americas
New York, N.Y. 10036

Commissioner for Patents
P.O. Box 1450
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PRELIMINARY AMENDMENT

Sir:

Prior to examination on the merits, please amend the above-identified application as follows:

In the Claims:

Please cancel claims 1-26 without prejudice.

1. (Canceled)
2. (Canceled)
3. (Canceled)
4. (Canceled)
5. (Canceled)
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13. (Canceled)
14. (Canceled)
15. (Canceled)
16. (Canceled)
17. (Canceled)
18. (Canceled)
19. (Canceled)
20. (Canceled)
21. (Canceled)
22. (Canceled)
23. (Canceled)
24. (Canceled)
25. (Canceled)
26. (Canceled)

27. (Original) A method of producing a booklet of a document file, comprising the steps of:

forming images of the document file on both sides of a sheet by an image forming apparatus and discharging the sheet therefrom, the sheet is being selected from a full-size sheet

set to be conveyed in its longitudinal direction and a half-size sheet half a size of the full-size sheet and set to be conveyed in its lateral direction;

receiving the sheet discharged from the image forming apparatus, detecting if the received sheet is the full-size sheet conveyed in its longitudinal direction or the half-size sheet half conveyed in its lateral direction, and further conveying the received sheet;

folding the received sheet in two at its center portion in a direction the received sheet is conveyed when the received sheet has been detected to be the full-size sheet in the receiving step and further conveying the folded received sheet with the folded center portion thereof being served as a leading edge of the folded received sheet, and conveying the received sheet without folding the received sheet when the received sheet has been detected to be the half-size sheet in the receiving step;

receiving and jogging the received sheet, conveyed one after another, to be stacked one upon another;

binding the stacked received sheets at their leading edge portions in a direction the received sheets have been conveyed; and

discharging the bound received sheets as the booklet.

28. (Original) A sheet folding and binding apparatus, comprising:

a sheet receiving device configured to receive a sheet carrying images on both sides thereof, discharged from an image forming apparatus, and to further convey the received sheet, the sheet receiving device including a sheet size detect device configured to detect if the received sheet has a predetermined length in a direction the received sheet is conveyed;

a folding device configured to fold the received sheet conveyed by the sheet receiving

device in two at its center portion in the direction the received sheet is conveyed by the sheet receiving device, when the received sheet has been detected by the sheet size detect device of the sheet receiving device to have the predetermined length in the direction the received sheet is conveyed by the sheet receiving device, and to further convey the folded received sheet with the folded center portion thereof being served as a leading edge of the folded received sheet;

a directly conveying device configured to guide the received sheet conveyed by the sheet receiving device so as to be further conveyed by the folding device without being folded by the folding device, when the received sheet has been detected by the sheet size detect device of the sheet receiving device not to have the predetermined length in the direction the received sheet is conveyed by the sheet receiving device;

a jogging device configured to receive and jog the received sheet conveyed by the folding device, one after another, so as to be stacked one upon another; and

a binding device configured to bind the stacked received sheets at their leading edge portions in a direction the received sheets is conveyed by the folding device.

29. (Original) The sheet folding and binding apparatus according to Claim 28, wherein the directly conveying device is an integral part of the folding device.

30. (Original) The sheet folding and binding apparatus according to Claim 29, wherein the folding device includes a guiding mechanism configured to receive and guide the received sheet conveyed by the sheet receiving device, and a sheet folding/pressing device configured to pinch the received sheet at its center portion in the direction the received sheet is conveyed by the sheet receiving device so that the received sheet is folded at its center portion when the

received sheet has been detected by the sheet size detect device of the sheet receiving device to have the predetermined length in the direction the received sheet is conveyed by the sheet receiving device and to further convey the folded received sheet with the folded center portion thereof being served as a leading edge of the folded received sheet, and

wherein the directly conveying device is an integral part of the guiding mechanism of the folding device.

31. (Original) The sheet folding and binding apparatus according to Claim 30, wherein the directly guiding device in the guiding mechanism of the folding device includes a returning device configured to return the received sheet conveyed by the sheet receiving device so as to be conveyed by the sheet folding/pressing device, without being folded by the sheet folding/pressing device, to the jogging device, when the received sheet has been detected by the sheet size detect device of the sheet receiving device not to have the predetermined length in the direction the received sheet is conveyed by the sheet receiving device.

32. (Original) The sheet folding and binding apparatus according to Claim 29, wherein the folding device includes a sheet pushing mechanism configured to push the received sheet downward at its center portion in the direction the received sheet is conveyed by the sheet receiving device when the received sheet has been detected by the sheet size detect device to be the full-size sheet conveyed in its longitudinal direction, and a sheet folding/pressing device configured to pinch the received sheet at the center portion thereof pushed by the sheet pushing mechanism so that the received sheet is folded at the center portion thereof by the sheet folding/pressing device to be further conveyed with the folded center portion thereof

being served as the leading edge of the folded received sheet, and

wherein the directly conveying device is an integral part of the sheet pushing mechanism of the folding device.

33. (Original) The sheet folding and binding apparatus according to Claim 30, wherein the sheet receiving device includes a correcting mechanism configured to correct an advancing direction of the received sheet so as to be at a right angle relative to the sheet folding/pressing device.

34. (Original) The sheet folding and binding apparatus according to Claim 33, wherein the correcting mechanism of the sheet receiving device of the sheet folding and binding apparatus includes a reference guide configured to guide the advancing direction of the received sheet to be at the right angle relative to the longitudinal direction of the sheet folding/pressing device, and a sheet shifting device configured to shift the received sheet, while conveying the received sheet, to the reference guide so that the advancing direction of the received sheet is corrected by the reference guide so as to be at the right angle relative to the longitudinal direction of the sheet folding/pressing device.

35. (Original) The sheet folding and binding apparatus according to Claim 28, further comprising:

a detect sensor arranged between the folding device and the jogging device to detect the received sheet; and

a controller configured to determine that the received sheet has been jammed and to